**Merging data from weather stations to cropping events for site specific analysis.**

Weather data is one of the most important factors which are analyze in agriculture given that keeps a strong relation with the yield variability and the decisions farming making, however usually it require a long data processing and to make many decisions about how to join weather stations and cropping fields. Some of the challenges that are necessary to deal with is when we have many points georeferenced that represent the cropping field, and we want to decide which weather station will represent better the weather conditions in each point, this representation is evaluate according to the spatial proximity between field-Station, differences in elevation and number of missing values in the original data in the period of the cropping cycle (sowing date to harvest date).

In order to make this process easier and make that new researchers are able to follow the steps, we created an r project repository that is call [Vinculacion\_clima\_lotes\_comerciales](https://github.com/hdorado/aeps_Vinculacion_clima_ciclos_cosecha), where we had documented all the process to join weather stations and cropping cycles, also we left an example with simulated data in Chiapas México in these repository, in such way a new user can replay the process just by adjusting his data to the formats requires and follow all specifications. The R scripts that are contained in the repository allow to generate a standard dataset to report availability of weather data, to estimate the elevation in georeferenced places, to define spatial, and elevations constrains for the process that join stations-fields and to generate weather indicators to analyses the effect weather – crops. The outputs can be used after for both to analyses the relevant factors that affect the yield variability and to make time series clusters from weather patterns.